

Final Area Designations for the Annual Fine Particle Standard

Established in 2012

Action

- On December 18, 2014, the Environmental Protection Agency (EPA) issued final area designations for the 2012 annual national air quality standard for fine particulate matter (PM_{2.5}). EPA strengthened the annual fine particle standard to 12 micrograms per cubic meter (µg/m³) in 2012. After working closely with the states, and some tribes, EPA is completing the routine Clean Air Act process to identify areas as either “nonattainment,” “unclassifiable/attainment,” or “unclassifiable” based on air quality monitoring data from 2011-2013.
- EPA is designating [14 areas in six states](#) as “nonattainment.” These areas include counties with monitors measuring a violation of the standard as well as nearby counties contributing to a violation by emitting fine particle pollution, or pollutants that form it. These designations will be effective 90 days after publication in the Federal Register.
- Through regularly scheduled technical audits required by regulation, EPA identified quality assurance/quality control issues with the weighing of filters from some air quality monitoring locations to measure fine particle pollution at four laboratories run by states or local agencies. . Subsequently, EPA invalidated data from a number of monitoring sites that would have been used to assess compliance with the 2012 annual PM_{2.5} standard. As a result, EPA is designating as “unclassifiable”: Puerto Rico; the US Virgin Islands; and the entire state of Illinois including two counties in Indiana associated with the Chicago, IL area, and four counties and one city in Missouri associated with the St. Louis, IL area. EPA is working with states to ensure that errors in the data collection and processing procedures are understood and corrected.
- Also as a result of data validity issues EPA is deferring designations for the following ten areas: eight areas in Georgia which also include single counties in South Carolina and Alabama; the entire state of Tennessee, except 3 counties in the Chattanooga area; and the entire state of Florida. In deferring these areas, the EPA is using the additional time available to it as provided in the Clean Air Act to further assess data for these areas and promulgate appropriate initial area designations.
 - For all of the areas except Florida, the EPA expects that additional monitoring data collected after 2013 will provide the requisite amount of valid data needed for designations.
 - The EPA only recently identified potential data quality issues that may affect the validity of fine particle pollution monitoring data for the state of Florida. The EPA needs additional time to further evaluate Florida’s data to determine whether the data are valid and whether areas in Florida meet the 2012 annual fine particle standard.

- EPA is designating all other areas of the country as “unclassifiable/attainment.” These areas have monitoring data that shows they meet the standard or EPA has reviewed available information and determined they are likely to be meeting the standard and not contributing to a nearby violation.
- Designations guide the actions that states, tribes and EPA must take to improve or preserve air quality in each area. EPA will work with the states and tribes to share the responsibility of reducing fine particle pollution.
- EPA and its partners at state, tribal and local agencies are taking action to cut particle pollution. Efforts by states and tribes to attain the 1997 and 2006 PM_{2.5} standards are already working to reduce unhealthy levels of fine particle pollution. In addition, EPA’s Clean Diesel Program is helping to reduce fine particle pollution across the country from highway, nonroad and stationary diesel engines. Also, as a result of Federal programs to address interstate transport, levels of sulfur dioxide (which can form PM_{2.5}) have also been reduced. In some areas, wood smoke emissions are a significant contributor to fine particle pollution. A wood stove or fireplace changeout campaign or other program targeting wood smoke emissions may reduce emissions and help an area attain the standard. From 2000, the national annual average PM_{2.5} concentration has dropped 34%.

About Designations

- The designation process begins with state governors evaluating air quality monitoring data across their state along with other factors such as sources of pollutants that either directly emit PM_{2.5} or emit precursor pollutants that form PM_{2.5}, and weather patterns then making recommendations to EPA for how all areas in the state should be designated. Tribal leaders may also make area recommendations, but they are not required to do so.

Nonattainment Areas

- The Clean Air Act requires state, local and tribal governments to take steps to control fine particle pollution in PM_{2.5} nonattainment areas. State and local governments must detail these steps in plans that demonstrate how they will meet the 2012 annual PM_{2.5} standard. Those plans are known as state implementation plans, or SIPs. States must submit their plans to EPA within 18 months from the effective date of designations – likely by Fall 2016. Tribes also may submit plans, known as tribal implementation plans (TIPS), but are not required to do so.
- Nonattainment areas must implement “transportation conformity,” which requires that local transportation and air quality officials coordinate planning to ensure that transportation-related emissions -- from projects such as road construction -- do not interfere with an area’s ability to reach its clean air goals. Transportation conformity requirements become effective one year after the effective date of an area’s designation as nonattainment.
- Once designated, nonattainment areas also are subject to additional new source preconstruction review requirements. New Source Review is a permitting program for

industrial facilities to ensure that new and modified sources of pollution do not impede progress toward cleaner air.

- Nonattainment areas are required to meet the standard no later than 2021. EPA may grant attainment date extensions for up to five additional years in areas with more severe PM_{2.5} problems and where emission control measures are not available or feasible.

Unclassifiable/Attainment Areas

- Areas designated “unclassifiable/attainment” will not have to take additional steps to improve air quality but they must continue to take steps to help prevent their air quality from deteriorating to unhealthy levels.

Unclassifiable Areas

- EPA cannot determine, based on available information, whether an unclassifiable area is meeting the standard or contributing to a nearby violation. These areas will not have to take additional steps to improve air quality at this time, but they must continue to take steps to help prevent their air quality from deteriorating to unhealthy levels.
- EPA will work closely with these areas to ensure that identified problems with air quality monitoring procedures are corrected. The Agency intends to assess air quality in these areas once the requisite amount of valid air monitoring data are available.

Deferred Areas

- EPA is using authority available under the Clean Air Act to take additional time to collect and assess information before finalizing designations for these areas.
- Because air quality monitoring for 2014 is nearly complete, EPA intends to evaluate the status of an area based on its annual PM_{2.5} monitoring data from 2012 – 2014, if a state submits complete, quality-assured and certified air quality data before the designations become effective. EPA has established a deadline of February 27, 2015 for states to provide updated 2014 data to EPA.

Background

- The Clean Air Act requires EPA to issue designations after the agency sets a new National Ambient Air Quality Standard or revises an existing standard. EPA formally designates areas as “nonattainment” (not meeting the standard or contributing to a nearby violation), “unclassifiable/attainment” (meeting the standard or expected to be meeting the standard and not contributing to a nearby violation), or “unclassifiable” (insufficient information to classify).
- On December 14, 2012, EPA revised the National Ambient Air Quality Standards for PM_{2.5} by strengthening the annual health-based standard to 12 micrograms per cubic meter (µg/m³) from 15 µg/m³. Thousands of scientific studies have linked exposure to these tiny particles - approximately 1/30th the size of a human hair - with serious human health problems

including premature death in people with heart and lung disease; nonfatal heart attacks; and increased hospital admissions and doctor and emergency room visits for respiratory and cardiovascular disease.

- In April 2013, EPA issued guidance on *Area Designations for the 2012 Revised Annual Fine Particle National Ambient Air Quality Standard*, which provided information on the schedule and process for designating areas for the purpose of implementing the 2012 primary annual PM_{2.5} standard. The guidance also identified factors that the EPA will evaluate in making final nonattainment areas boundary decisions and that states and tribes should consider as they make their recommendations for area designations. These factors are:
 - Air quality data;
 - Emissions and emissions related data
 - a. Location of sources and population
 - b. Emissions levels and emissions controls
 - c. Traffic and commuting patterns
 - d. Growth rates and patterns;
 - Meteorology (weather/transport patterns);
 - Geography/topography (mountain ranges or other air basin boundaries);
 - Jurisdictional boundaries (e.g., counties, air districts, reservations, metropolitan planning organizations).
- When considering the above factor analysis, the EPA looked at directly emitted PM_{2.5} and emissions of the “precursor” pollutants that form it (e.g., nitrogen oxides (NO_x), sulfur dioxide (SO₂), volatile organic compounds (VOC), and ammonia (NH₃)).
- States and some tribes provided their initial designation recommendations in December 2013. In August 2014, EPA sent letters to state and tribal representatives responding to their initial recommendations for areas meeting and not meeting the revised annual PM_{2.5} national ambient air quality standard, and indicating whether EPA intended to modify any of those recommendations. States and tribes were provided an opportunity to comment on EPA’s modifications to their recommendations, and to provide new information and analyses to EPA to demonstrate why a proposed modification is inappropriate.
- EPA also provided the public with a 30-day opportunity to comment on the Agency’s proposed designations and to offer additional information that could be relevant to making final designation decisions.

Additional Information

- For more information on the designation process for the fine particle standards go to EPA’s Web site at www.epa.gov/pmdesignations.